

## **Methods and Structures for Planar and Multiple-Gate Transistors Formed on SOI**

### **ABSTRACT**

A semiconductor device includes an insulator layer, a semiconductor layer, a first transistor, and a second transistor. The semiconductor layer is overlying the insulator layer. A first portion of the semiconductor layer has a first thickness. A second portion of the semiconductor layer has a second thickness. The second thickness is larger than the first thickness. The first transistor has a first active region formed from the first portion of the semiconductor layer. The second transistor has a second active region formed from the second portion of the semiconductor layer. The first transistor may be a planar transistor and the second transistor may be a multiple-gate transistor, for example.